

FIG. 1

000000 1347653

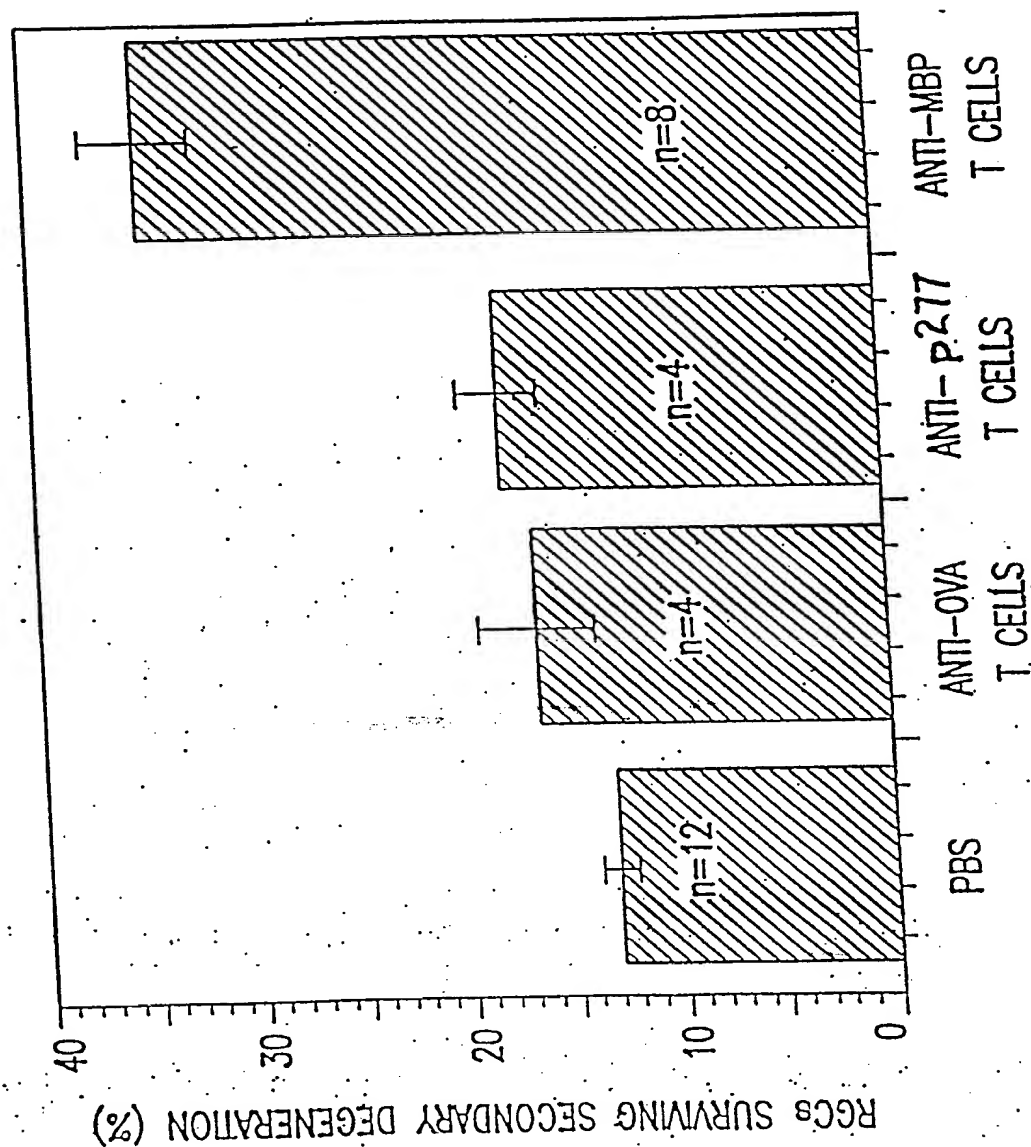
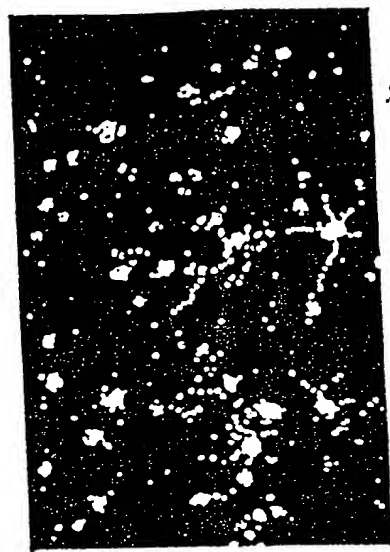


FIG. 2

66666 66666 66666



160 μ m

FIG. 3C



FIG. 3B



FIG. 3A

Year	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

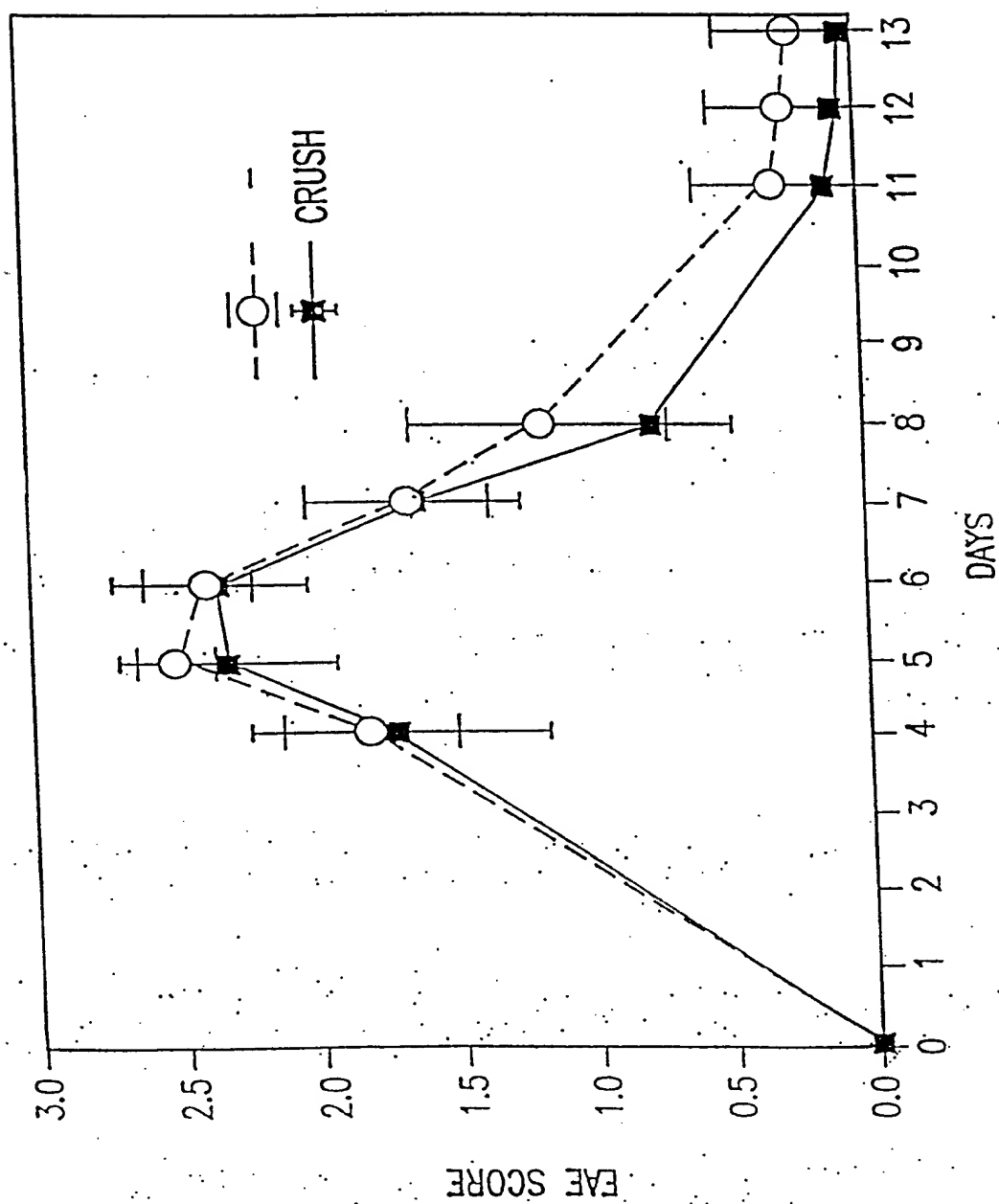


FIG. 4A

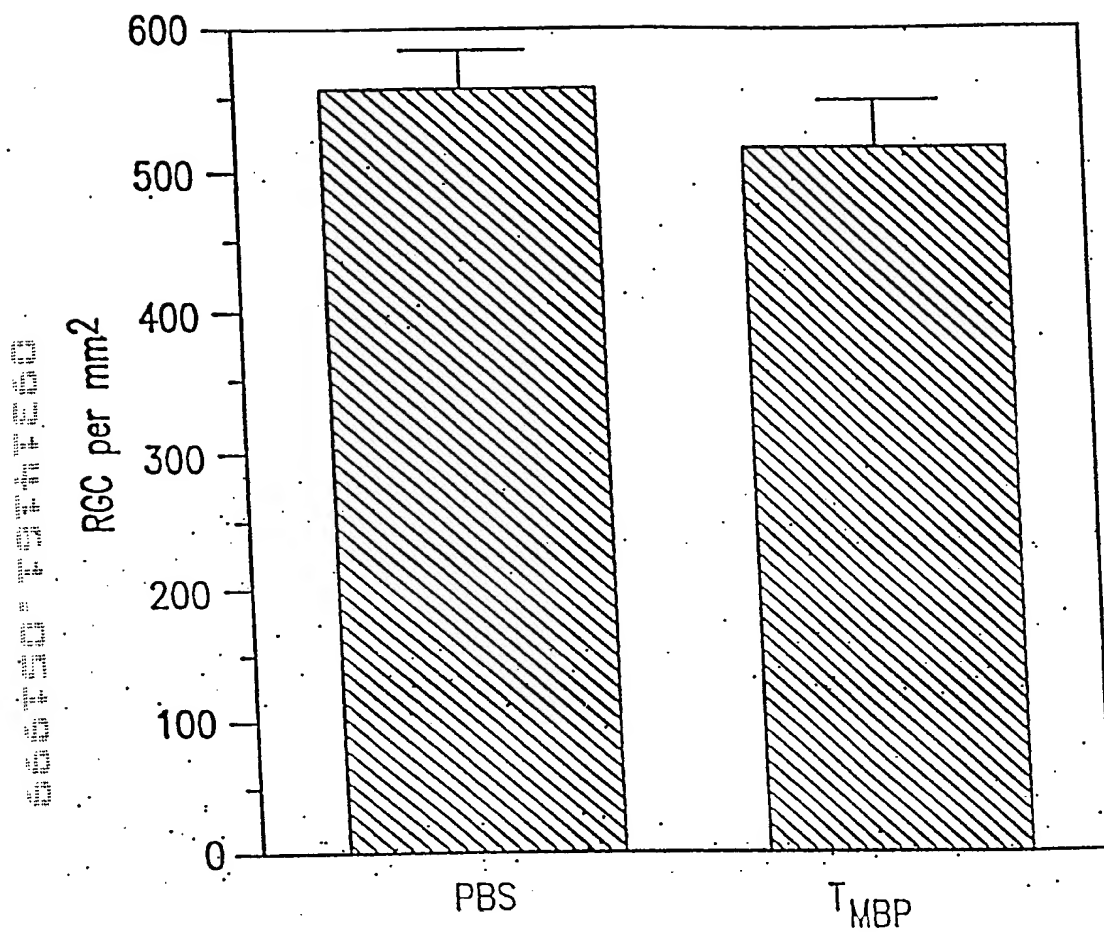


FIG. 4B

RCGs surviving secondary degeneration (%)

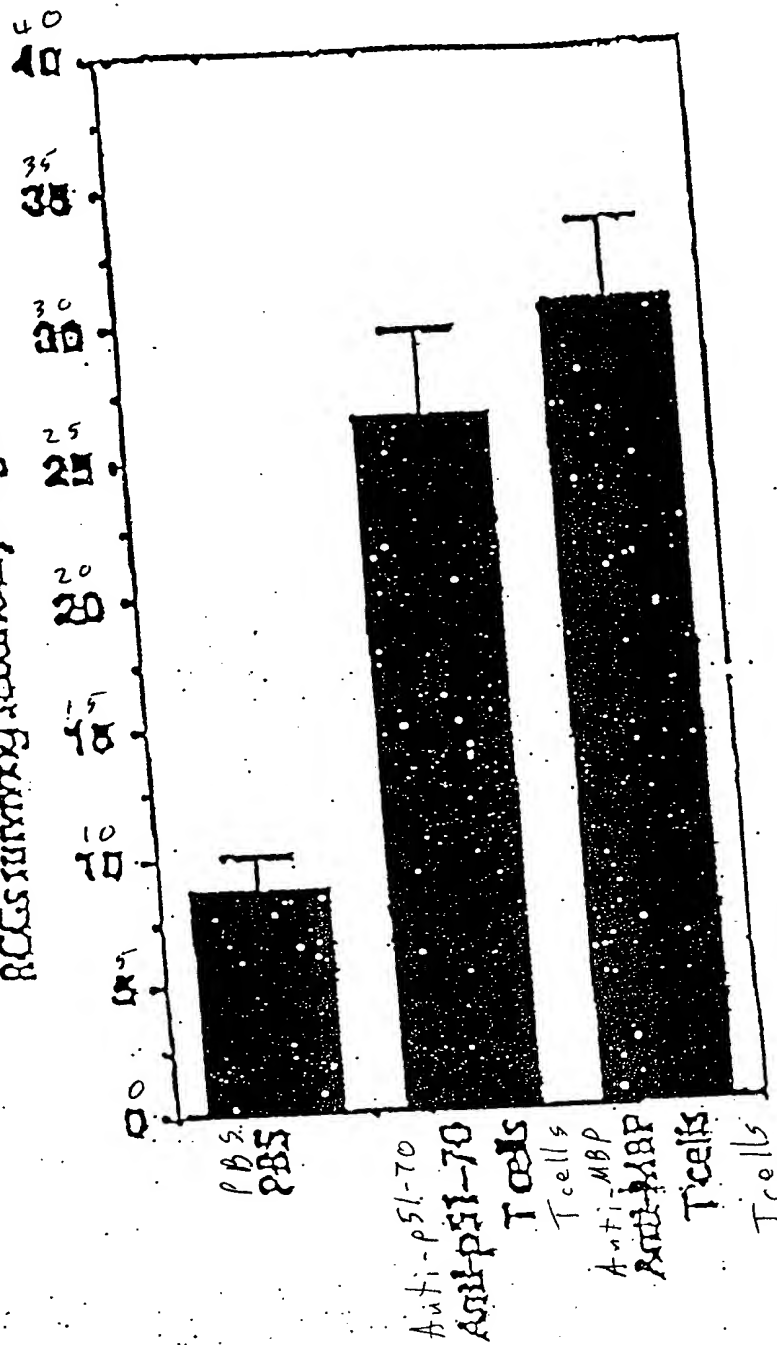


FIG. 5

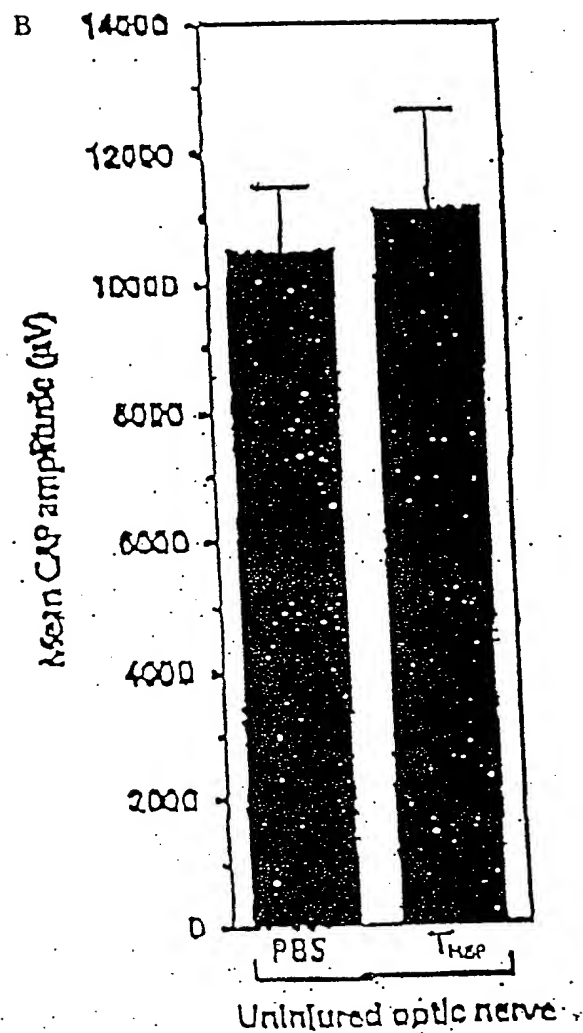
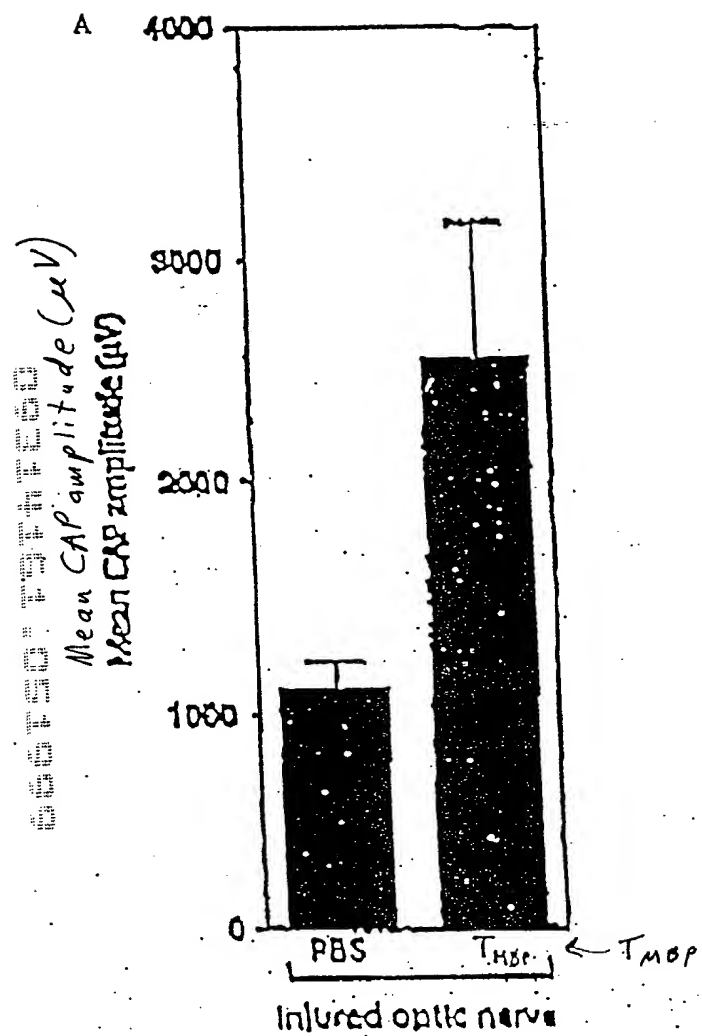


FIG. 6

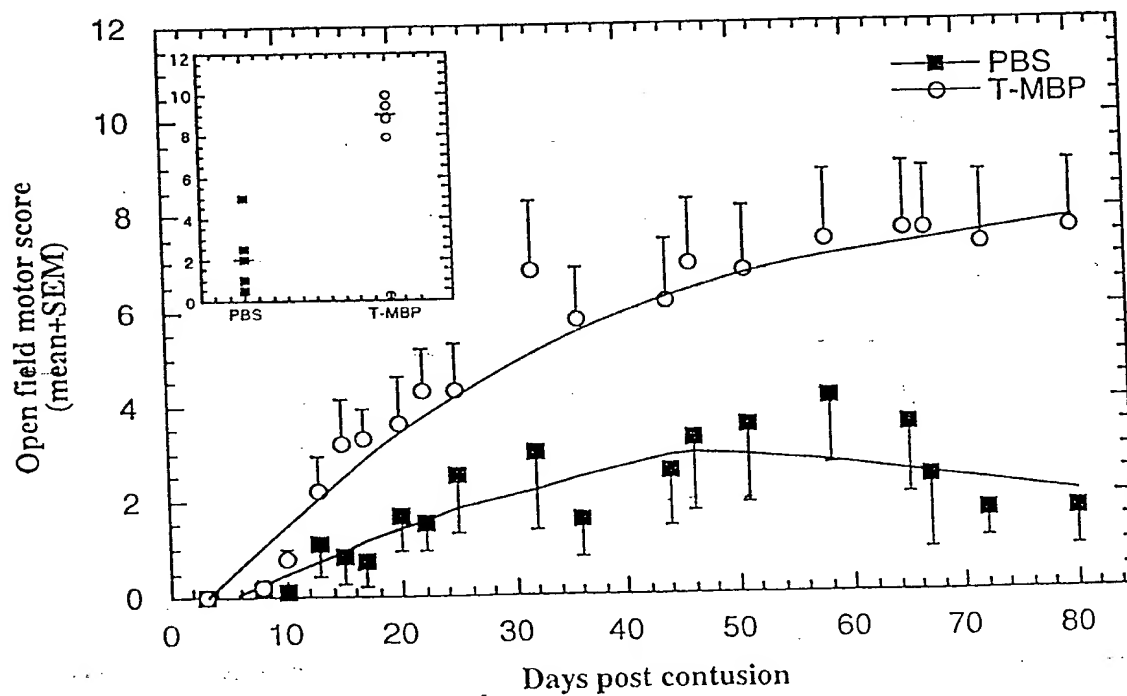
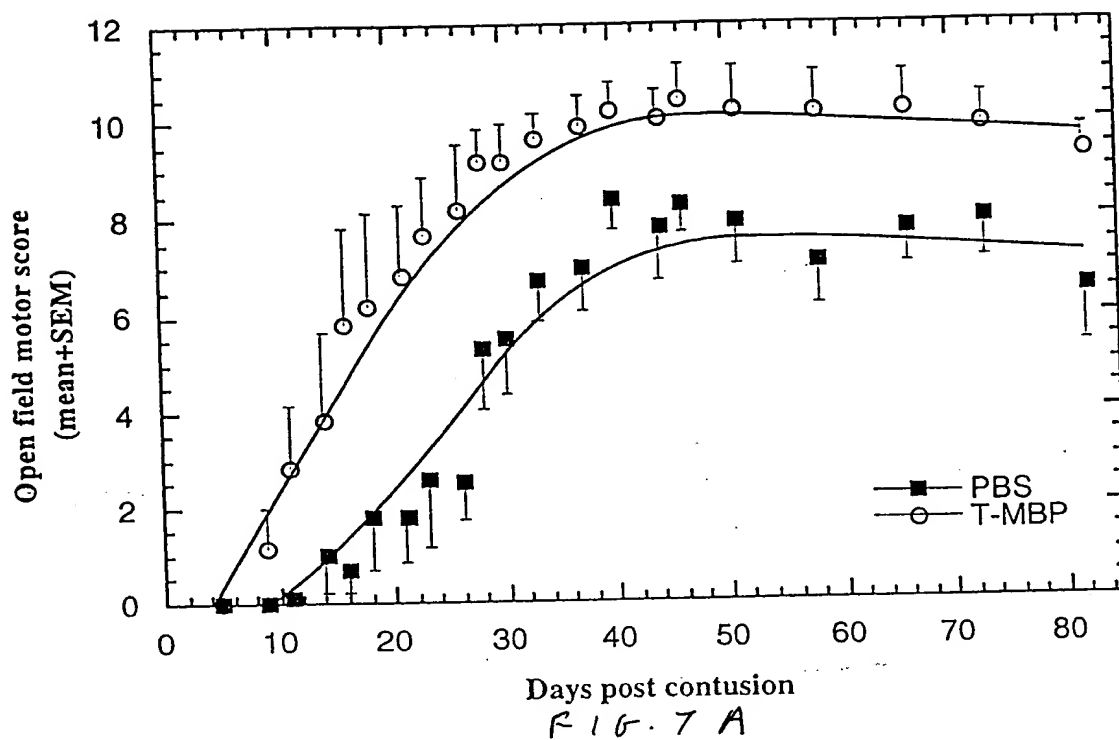


FIG. 8

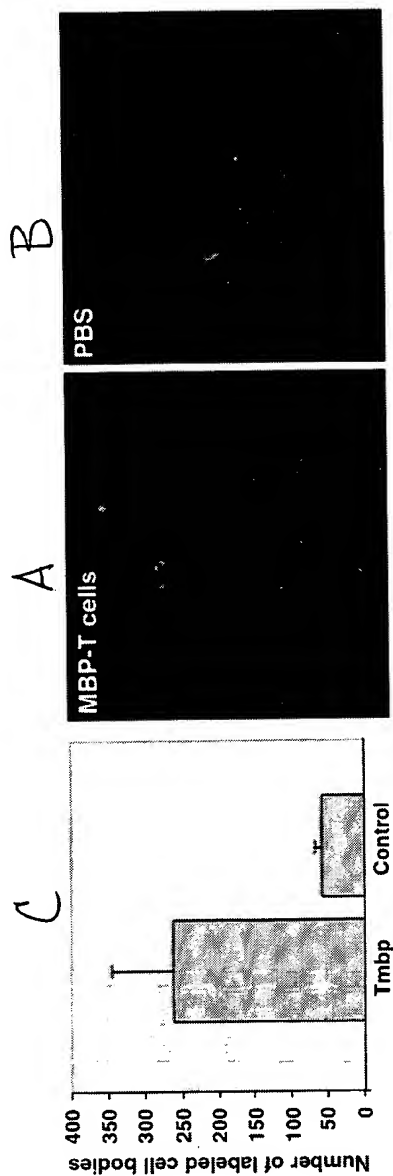
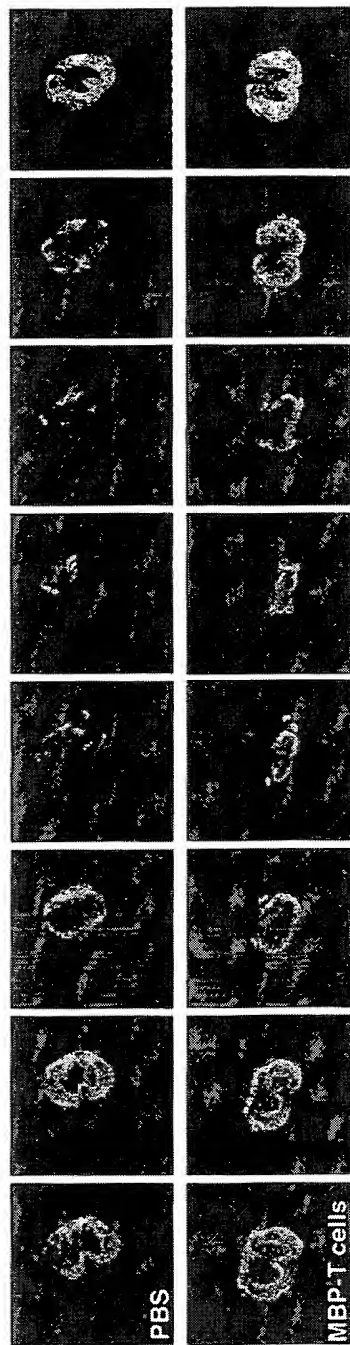


FIG. 9

site of contusion



RGCS SURVIVING SECONDARY DEGENERATION (%)

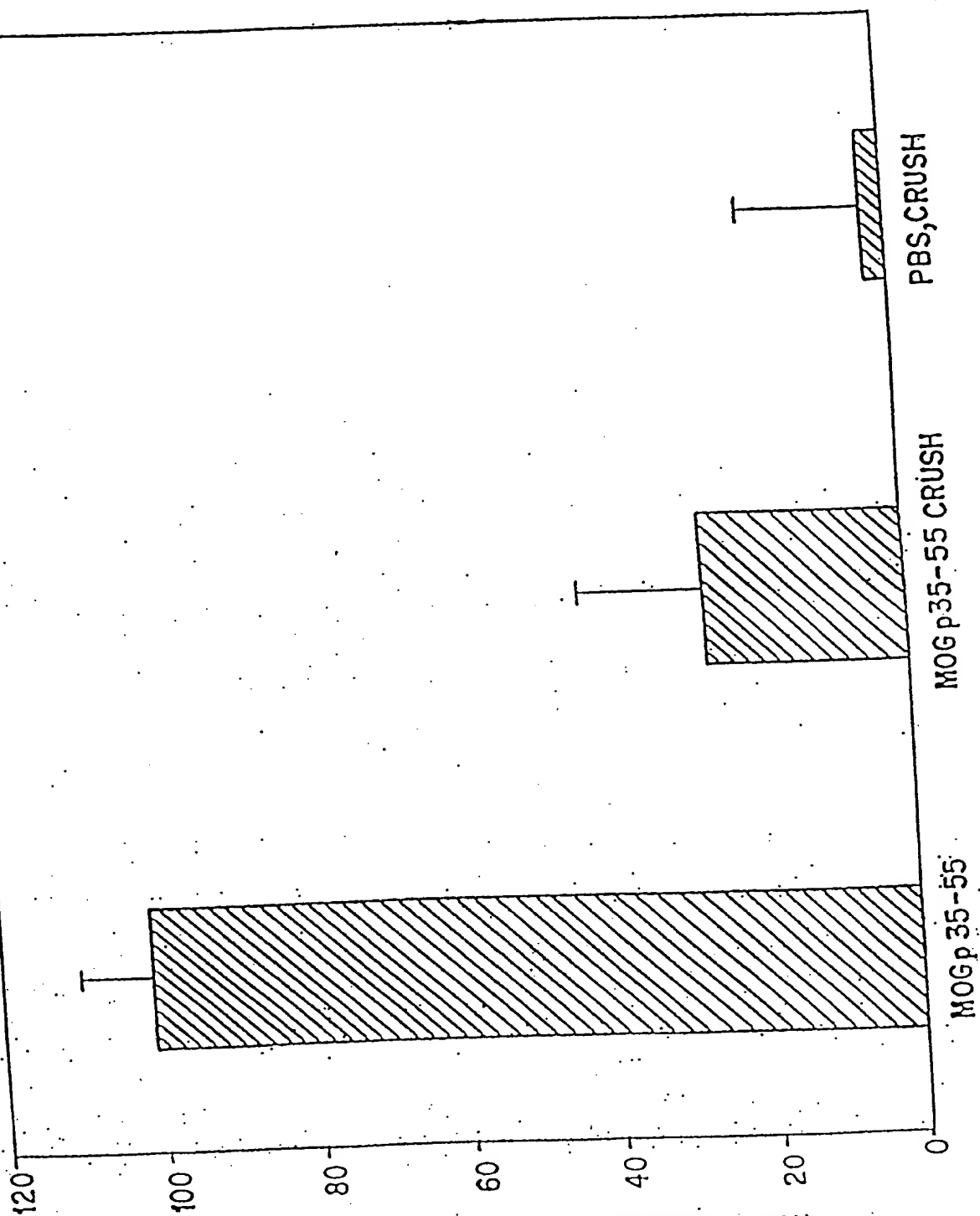


FIG. 10

55423 P 24460

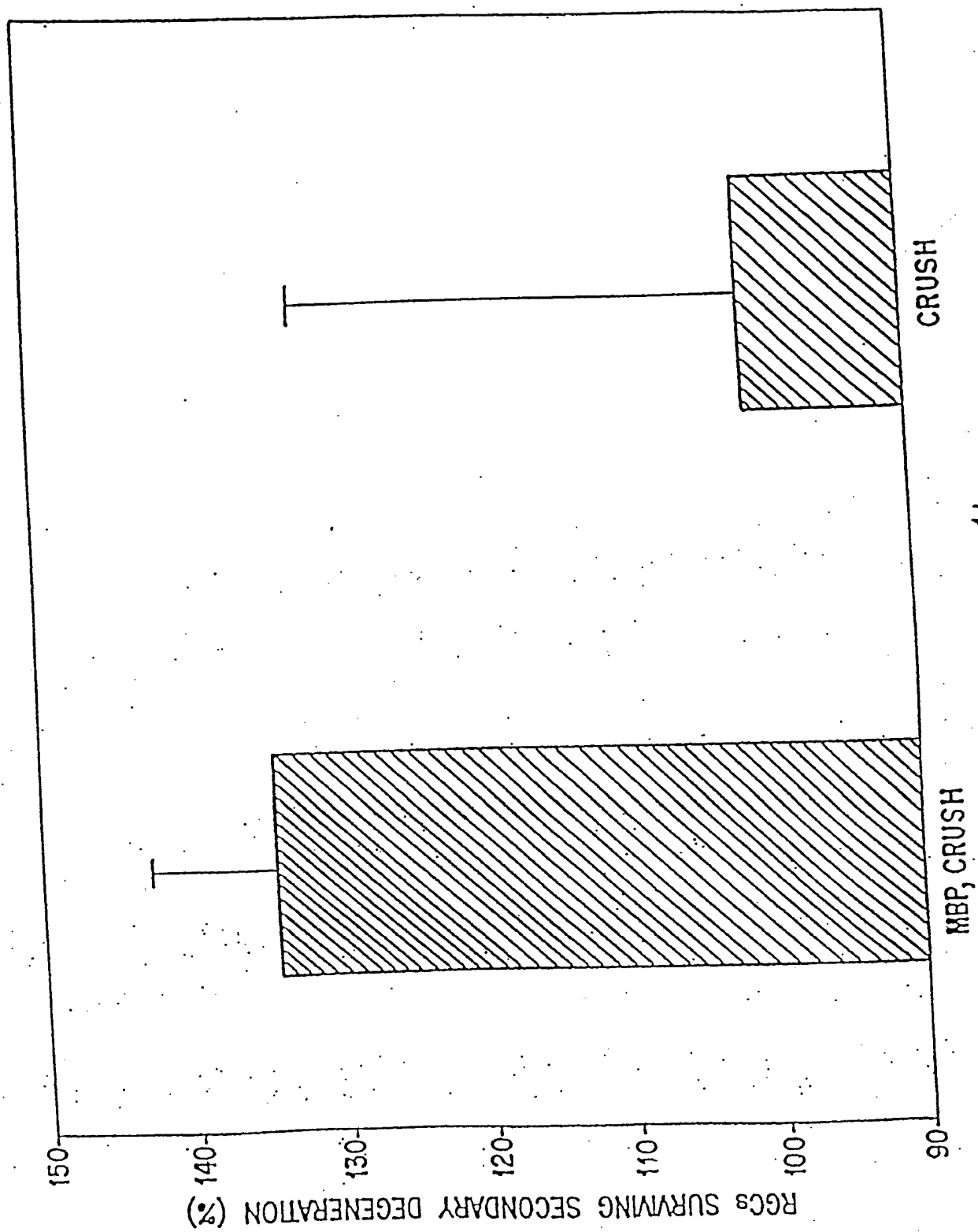


FIG. 41

FIG.12

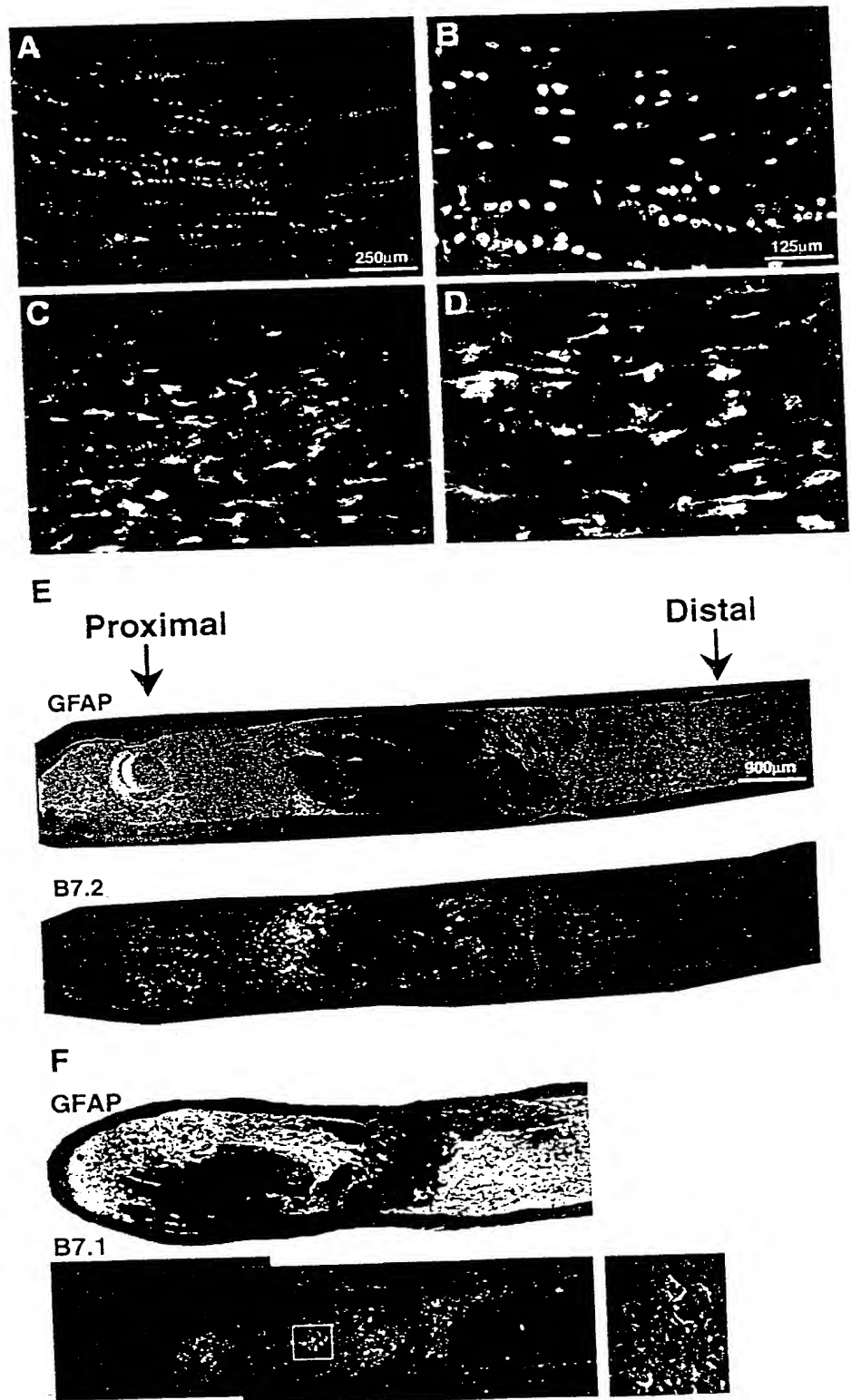
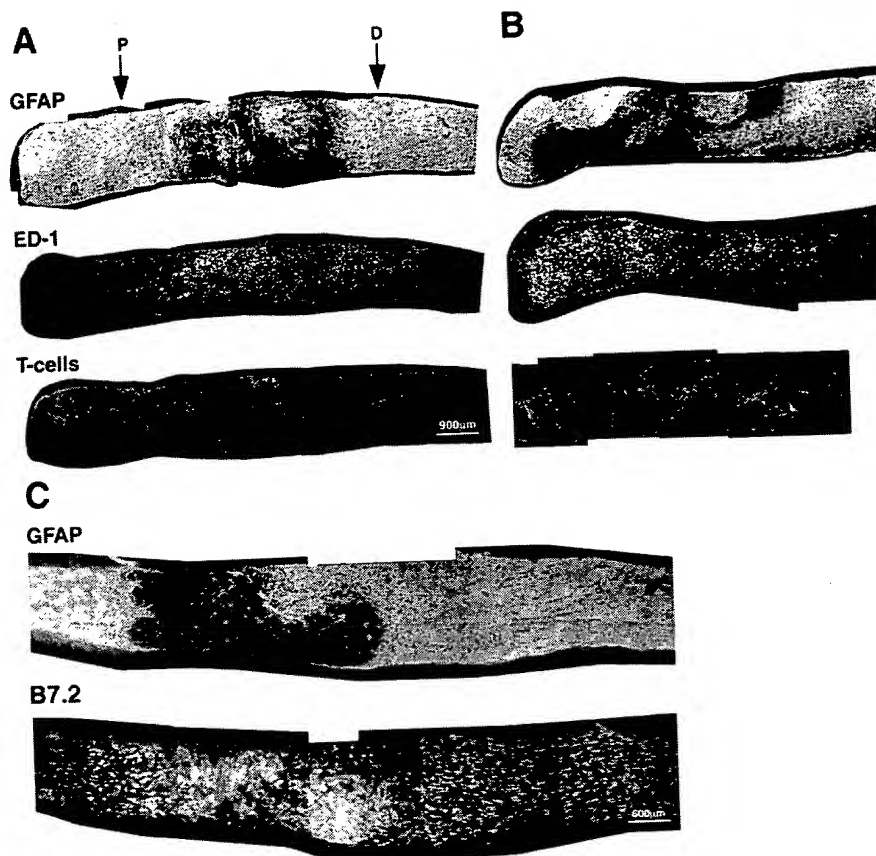
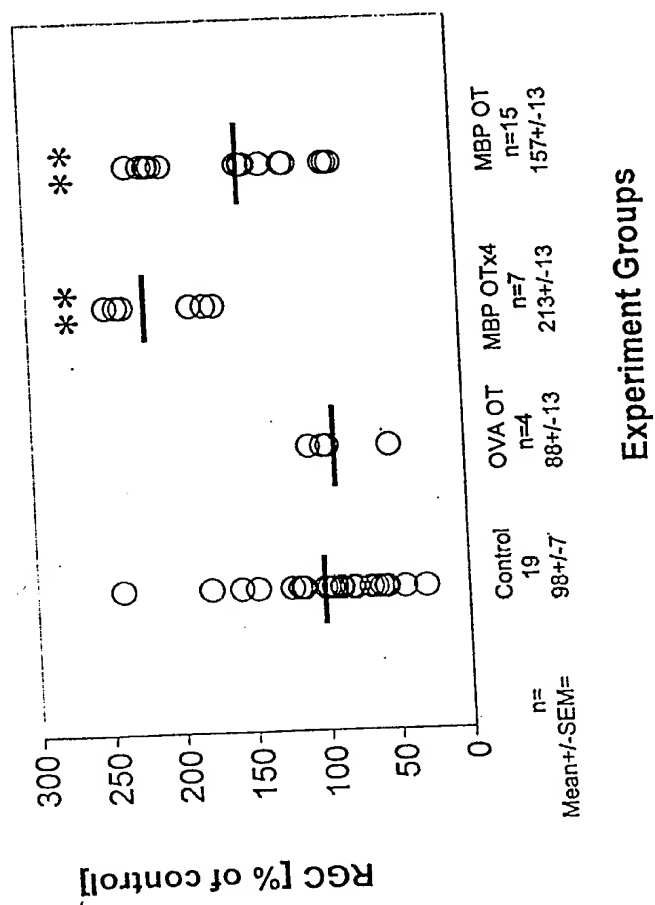


FIG. 13



600µm

Fig. 11



1 gaaaacagtg cagccacctc cgagagcctg gatgtgatgg cgtcacagaa gagaccctcc
 61 cagaggcacg gatccaagta cctggccaca gcaagtacca tggaccatgc caggcatggc
 121 ttcttcccaa ggcacagaga cacgggcac cttgactcca tcgggcgctt ctttggcggg
 181 gacaggggtg cgccaaagcg gggctctggc aaggactcac accaccggc aagaactgct
 241 cactatggct ccctgcccc gaagtacac ggccggaccc cgtcgcaggg aaaggggaga
 301 cactttctca agaacttgt gacgcctcg acaccacccc agagaccagg atttggctac
 361 ggactgtccc tgagcagatt tagctgggg gccgaaggcc tcaaggagg cgatgcccag
 421 ggaggcagag cgtccgacta taaatcggct cacaagggat gtcgctctgg atcaccatg
 481 ggcacgcttt ccaaaatttt taagctggga ggaagagata tcagcttctt aatataactg
 541 gctagacgct gaaaacccac ctggttcgg aatcctgtcc gcagatga cccctccct
 601 ccttaaaact ttaatccac ttgcccctgt tacctaatta gcagcctacc ggcaatttcc
 661 aatgcctgag gaggttgtga cgtagtagg catgaaaaca gaaacgggtt aaaactgtcc ctttctgtg
 721 ggccaacagt taaatgagaa ctagtaagg gaaacgggtt cccagacgc acgtgggtct tcagggggcc
 781 gaagatcacg ttccttcccc cgcaatgtgc cccagacgc acgtgggtct tcagggggcc
 841 aggtgcacag acgtccctcc acgttcaccc ctccaccctt ggactttctt ttcgcccgtg
 901 ctcggcaccc ttgcgctttt gctggctact gccatggagg cacacagctg cagagacaga
 961 gaggacgtgg gcggcagaga ggactgttga catccaagct tcctttgttt tttttcctg
 1021 tccttctctc acctcctaaa gtagacttca ttttccctaa caggattaga cagtcaagga
 1081 gtggcttact acatgtggga gctttttggt atgtgacatg cgggctgggc agctgttaga
 1141 gtccaacgtg gggcagcaaa gagagggggc cacctcccca ggccgtggct gccacacac
 1201 cccaattagc tgaattcgcg tgtggcagag ggaggaaaag gaggcaaacg tgggctgggc
 1261 aatggcctca cataggaaac agggctcttc tggagatttg gtgatggaga tgtcaagcag
 1321 gtggcctctg gacgtcaccc ttgcccctga tgggtggccc agagcagcct ctatgaacaa
 1381 cctcgtttcc aaaccacagc ccacagccgg agagtccagg aagacttgcg cactcagagc
 1441 agaagggtag gagtccctca gacagcctcg cagccgcgc agtcgcccac agacactggc
 1501 tgtgaccggg cgtgctggca gcggcagtg acagtggcca gcactaacc tccctgagaa
 1561 gataaccggc tcattcactt cctcccagaa gacgcgtgg agcgagtagg cacaggcgtg
 1621 cacctgctcc cgaattactc accgagacac acgggctgag cagacggccc ctgtgatgga
 1681 gacaaagagc tcttctgacc atatccttct taacacccgc tggcatctcc tttcgcgct
 1741 cctccctaa cctactgacc caccttttga ttttagcgca cctgtgattg ataggccttc
 1801 caaagagtc cagctggga tcaccctccc cgaggacgga gatgaggagt agtcagcgtg
 1861 atgccaaaac gcgtcttctt aatccaattc taattctgaa tgtttcgtgt gggcttaata
 1921 ccattgtctat taatatatag cctcgatgat gagagagtta caaagaacaa aactccagac
 1981 acaaacctcc aaatttttca gcagaagcac tctgcgtcgc tgagctgagg tcggctctgc
 2041 gatccatacg tggccgcacc cacacagcac gtgctgtgac gatggctgaa cggaaagtgt
 2101 aactgttcc tgaatattga aataaaacaa taaactttt

FIG. 16

A.

1	taatatctag	ggktttgact	ctgacccgtg	ttggggctct	cacttcattg	cttctcacgc
61	ttgtgctgca	tatcccacac	caattagacc	caaggatcag	ttggaagttt	ccaggacatc
121	ttcattttat	ttccacccctc	aatccacatt	tccagatgtc	tctgcagcaa	agcgaaattc
181	caggcaagcc	ttagggaata	aaggaaaaac	aaagaaaatg	aaacaatttg	cagtgaagg
241	cagaaagaga	agatggagcc	cttagagaag	ggagtatccc	tgagttaggtg	gggaaaagg
301	gaggagaagg	ggaggaggag	aggaggagga	aagcaggcct	gtccctttaa	gggggttggc
361	tgtcaatcag	aaagcccttt	tcattgcagg	agaagaggac	aaagatactc	agagagaaaa
421	agtaaaagac	cgaagaagga	ggctggagag	accaggatcc	ttccagctga	acaaagtcag
481	ccacaaagca	gactagccag	ccggctacaa	ttggagtcag	agtcccaaag	acatgggtaa
541	gtttcaaaaa	ctttagcatt	gaagattcaa	gaggacacag	g	

B.

1	ctgctttcag	agcctgtgac	ttcttgtgtg	cctctcctgt	ttctcagcaa	catggcatag
61	ggcctgggat	accaggctctg	gggatctcag	ggactcttag	cactttaaga	cacatgtgtt
121	cccaggccct	ggtgtgttcc	tctagtgcga	gaaagatgtt	tcatgctttg	ctgactttgt
181	ataaagtctg	ttttagctgt	ttttgacaga	atctcagcgt	ataactgagg	gtggggacat
241	tagccaagct	gcattatagg	aggacaaaac	tgccatacaa	agtgtccaaa	atcattaagc
301	ctgcattttt	attattggga	gtaatatcaa	acctcctatt	ttccaatttt	catttcttgt
361	cctgtgctag	ctccatcctg	tttggactgc	tcctcccata	tgtaaactaa	gaagaatcaa
421	gcattctttg	caacaaatac	acacgatgct	caaaaatgtc	caggagcatc	caatttccaa
481	agtttctctc	acctggaatg	ctcttcattg	taaaatcctg	acctctgtgt	accacttact
541	tggcctgcac	tcattcccttc	ctggaactcc	aagtgcattt	agctaatctt	tcctcaggaa
601	tggctgcctg	aattgttagt	tgaaaatatt	aggtctactt	cttcatatcc	cgtataacac
661	attaaagact	cccatatggc	agagtctgtg	tcctttctct	gttgatgaat	gactaaaata
721	ccagcataat	gctgggcata	tagtgagtat	tcataaaata	actggatttc	ataatctctc
781	agcaagcaaa	caaacagact	agaacaataa	gaaagaagg	aatatttttt	aaattctggc
841	tggcttgcta	tttgaattgc	tgaattatta	ttattttatta	tttcttgaga	cagagtctcg
901	aataaaaagg	aaggatttat	tttctttctt	tccttttttt	ctcacggcaa	cctccgcctc
961	ctcttactgc	ccaggctgga	gtacaatggc	gcaatcttgg	tagctgggat	tacaggcata
1021	ctcctgggtt	taacagattc	tcctgtctca	gcctcctgag	gggttttgcc	atgttggcca
1081	cgcccatgcc	cggctaattt	ttgtattttt	agtagagacg	gggttttgcc	atgttggcca
1141	ggctgggtct	gaactcctga	cctcatgtga	tcacactgcc	tcagcctccc	aaagtgctgg
1201	gattacaggc	atgcgccacc	gtgcccggcc	aaagatttat	tttcaagaat	gaaacaaagt
1261	aaggattctg	ggtcaatctc	acatgctgaa	agcctctgag	tcctagccgt	cctgcttttt
1321	gacttcggag	tgcccactat	ctccgagcct	gtgagcacag	ggcctggcag	aggggtttga
1381	gtggcatgag	ctacctactg	gatgtgectg	actgtttccc	cttctctctc	cccaggcttg
1441	ttagagtgtc	gtgcaagatg	tctggtaggg	gccccctttg	cttccctggt	ggccactgga
1501	ttgtgtttct	ttgggttggc	actgttctgt	ggctgtggac	atgaagccct	cactggcaca
1561	gaaaagctaa	ttgagacctc	tttctccaaa	aactaccaag	actatgagta	tctcatcaat
1621	gtgtaagtac	ctgcccctcc	acacagaccc	atcttttttt	tcctctctct	cactctggag
1681	atagagaact	cttcagtacc	ttagtaacta	gcaggggact	gggggtggagc	cagaccggat
1741	tcocagagtct	tcctctgtg	ca			

FIGS. 17A-B

C.

1	ctagaaaatc	cctagccttg	ttaagggtgt	cgctctggtg	tatacctcac	ttatgtcggg
61	aaagaagcca	ggtcttcaat	taataagatt	ccctgggtctc	gtttgtctac	ctgttaatgc
121	aggatccatg	ccttccagta	tgatcatctat	ggaactgcct	ctttcttctt	cctttatggg
181	gccctcctgc	tggctgaggg	cttctacacc	accggcgag	tcaggcagat	ccttggcgac
241	tacaagacca	ccatctgcgg	caagggcctg	agcgcaacgg	taacaggggg	ccagaagggg
301	aggggttcca	gaggccaaca	tcaagctcat	tctttggagc	gggtgtgtca	ttgtttggga
361	aaatggctag	gacatcccga	caaggtgatc	atcctcagga	ttttgtggca	ataacaaggg
421	gtgggggaaa	attgggcgag	agtctgtggc	ctcgtcccca	cccaaggctg	ggctcctctt
481	aggggcctgg	catttgagtg	aggaagcgat	ggctgcagcc	gaacgagaag	gtcaggaaga
541	acgtggtgcc	cagctggcct	agcctcacct	ttcaaagggt	ccctaagcaa	atttcttctc
601	aaaacagaaa	gcctgagttt	tgtgggatgc	ttgttacaat	cagaccattt	ctaagccatc
661	tggtgggtatc	cctttgttcc	cttctagta	ggtaccacaa	gagtggtatc	aactggacaa
721	gagtctaaaa	tgtctcat	gtgattgaga	cttgggcacc	tgagctraga	gggaggatgg
781	ataataaaaa	ttaataata	actccaaggt	aaatttaca	tgttctgg	

D.

1	gatactctc	attcttcccc	tacccattcc	ccccaccctc	cgttatactg	gggccagtta
61	tctagtagat	actgccaatt	acccttggca	gaggtgacct	gctcactaat	tttatttggg
121	ggagmgccct	ggaacctggt	tttaattgtc	ggcacacgcc	acttccagga	tctcccagtt
181	tgtgtttcta	catctgcagg	ctgatgtgta	tttctaacca	acctatgtca	atcatttttag
241	tttgtgggca	tcacctatgc	cctgaccggt	gtgtgggtcc	tgggtgttgc	ctgctctgct
301	gtgcctgtgt	acattttactt	caacacctgg	accacctgcc	agtctattgc	cttccccagc
361	aagacctctg	ccagtatagg	cagtctctgt	gctgatgcc	gaatgtatgg	tgagttaggg
421	tacgggtgct	ttggctctcc	taccactat	ggaagcacta	tatatttggg	tattttctta
481	gtgtaaggag	ggtggtgatt	atgagaaaaa	tataagatga	tgaatgattg	ggtcttagtt
541	tattaatcct	tccctactga	aaccagagag	gtttcttccc	ccggaaggga	acttgggaagt
601	ggtgggagtt	ttcttggcca	ttcacattgg	cctactctag	ttgactgctg	ttcacaaccc
661	caaagcagca	catttcaata	acaaacacaa	ggttdsacca	ctgttcaata	ccaccttctc
721	ttttttgtaa	acctgtagaa	aagaggatcc	taattgttgg	tagmatocaa	mtttacagcc
781	aggataatta	gagatggaag	aagggtctctg	ggggaaagtc	tccatgtggc	ccogtaactc
841	cataaagctt	accctgcttg	ctttttgtgt	cttacttagg	tgttctccca	tggaatgctt
901	tccctggcaa	ggtttgtggc	tccaaccttc	tgtccatctg	caaaacagct	gaggtgagtg
961	ggttatttgg	gttattttac	aagggagtag	ctaataccat	acaaattaca	cccatggcct
1021	tcaattttta	ggactgaaag	tttccctttg	ctggattttg	aattagccga	ttgccttcta
1081	caacatgttg	gctaagtgtg	cctgagccaa	tgagcataga	aggtaaaaca	cctcttttct

E.

1	aattagcaca	cagaaaggat	atccaacaca	tacaaagctg	tnntcatgga	ctacactgga
61	gcatattact	gctgttgcaa	gaaacatttc	ttcttctctc	tttcattttc	ctgcagttcc
121	aatgacctt	ccacctgttt	attgctgcat	ttgtgggggc	tgagctaca	ctggtttccc
181	tgggtgagttg	actttgaatg	atcttggcaa	gtaaataggc	ctgagatagt	tgtgggtaca
241	gctattctga	aaggcaagaa	ggtagactgc	ttccatcctt	gaaatgctgg	agggg

FIGS. 17C-E

F.

1 aattctatat actatcacta tggctccact ttggatactc tccagtggat ttagttactc
61 atatggaaat acctgggagg acctcctaac attattagaa ttgttatgat tataatacaa
121 ygctatgtcc caggctctgc tgatagtgtc acagtgcctt gtgaatgtag tgtgtcatt
181 gtgcagatta aaaacctaag gcaactgaagg gtgaagtgtat ttatctgaag ttattttata
241 aagcagtgtat cagacaasct gagctcacag aactccctgg cccctactgc tgagggttcc
301 atacagagtc aagtaatttc tcacctgtga aaacgaattg attcattaac caggggagag
361 ctctactgca tgatgtggct gtgtgtctac agcaagcacc ctatgactct aagtcactcg
421 gacatattga tgtggcaaaag cccaaatatt gtccacttcc ctgaggaaaa ctcaagtcta
481 gatcaaacag aggtgtggaa taaatcttta tgatttgatt ctctgggctt gggccatgag
541 acccatgatg cctcagagac atcggacttc cagtcaagtg tatatggaga aagccaagcc
601 tgggatgtac tgctttttgc agagcatggg ttttccctt atttagttat gatttttatt
661 ctacccttcc tcattcccaa agggatttga ggagggagtg ctttcttttc tactctcatt
721 cacattctct cttctgttcc ctacagctca ccttcatgat tgctgccact tacaactttg
781 ccgtccctaa actcatgggc cgaggcacca agttctgac ccccgtagaa atccccctt
841 ctctaatagc gaggtcttaa ccacacagcc tacaatgctg cgtctcccat cttaactctt
901 tgcctttgcc accaactggc cctcttctta cttgatgagt gtaacaagaa agggagagtct
961 tgcagtgtat aaggtctctc tttggactct cccctcttat gtacctctt tagtcatttt
1021 gcttcatagc tgggtcctgc tagaaatggg aaatgcctaa taatatgact tcccaactgc
1081 aagtcacaaa ggaatggagg ctctaattga attttcaagc atctcctgag gatcagaag
1141 taatttcttc tcaaagggtta cttccactga tggaaacaaa gtggaaggaa agatgtcag
1201 gtacagagaa ggaatgtctt tggctcctt gccatctata ggggccaat atattctctt
1261 tgggtgtacaa aatggaattc attctgcgtc totctattac actgaagata gaagaaaaaa
1321 gaatgtcaga aaaacaataa gagcgtttgc ccaaatctgc ctattgcagc tgggagaagg
1381 gggtcacaaagc aaggatcttt caccacaga aagagagcac tgaccccgat ggcgatggac
1441 tactgaagcc ctaactcagc caaccttact tacagcataa gggagcgtag aatctgtgta
1501 gacgaagggg gcatctggcc ttacacctcg tttagggaaga accctgtggt ttccaaggag
1561 tcttctcact ccttctctct tgataacagc taccatgaca accctgtggt ttccaaggag
1621 ctgagaatag aaggaaaacta gcttacatga gaacagactg gcctgaggag cagcagttgc
1681 tgggtggctaa tgggtgtaacc tgagatggcc ctctggtaga cacaggatag ataactcttt
1741 gगतatgcatg tctttttttc tggttaattag ttgtgtactc tggcctctgt catatcttca
1801 caatggtgct catttcatgg ggtattatcc attcagtcac ttgtttatta cttatttggt
1861 tgatttggtt tagaatgatg cacatttcat gtattccagt ttgtttttta aaactaggaa
1921 gttgcatcag aaatgtctgg agaataatc tttgattatg actgtttttt tattgggatt
1981 aattggacat taagcatcac aaatgatatt aaaaattggc tagttgaatc caatttgagt
2041 ttctacaagt attctgcctt tgcagaaaca gatttggtga atttgaatct tatcttgggt
2101 aatctgatcg ttctttctag ctaatggaaa atgattttac tttagcaatgt cataacagaa
2161 tggttaagagt taggtttaac ataaagggtta ttttctcttg atatagatca cataacagaa
2221 tgcaccagtc atcagctatt cagttggtaa gcttccagtc atcagctatt cagttggtta
2281 gcttcccagg aaaaaggaca ggcagaaaga gtttgagacc tgaatagctc ccagatttca
2341 gtcttttaatt gtttttggtta actttgggtt aaaaaaaaaa aaagtctgat tggttttaat
2401 tgaaggaaag atttgtacta cagttctttt gttgtaaaaga gttgtgtgtt tcttttccc
2461 caaagtgtt tcagcaatat ttaaggagat gtaagagctt tacaaaaaga cacttgatac
2521 ttgttttcaa accagtatac aagataagct tccaggctgc atagaaggag gagagggaaa
2581 atgttttgta agaaaccaat caagataaag gacagtgaag taatccgtac cttgtgtttt
2641 gttttgattt aataacataa caaataacca acccttccct gaaaacctca catgcataca
2701 tacacatata tacacacaca aagagagtta atcaactgaa agtgttctct catttctgat
2761 atagaattgc aattttaaca cacataaagg ataaactttt agaactttat cttacaaagt
2821 gtattttata aaattaaaga aaataaaatt aagaatgttc tcaatcaaac atcgtgtcct
2881 ttgagtgaat tgttctattt gacttcacaa tagaaactta ataatcgtac cttctcaaga

FIG. 17F

1 atggaaatgt tctgtatttg tgttgtctga tgagataacc actaactgta gtgctattga
 61 gcatttgaaa catggctagt gtaatcaatg aaccaaattt ttaattttat ttaattgtaa
 121 ttaatttttaa gtggccacat gcagggagtg actgctgcat tggacagcac ggctctaaat
 181 tgagcctttt ttccttattt ggtgaggcat acttgcccta agattgggaa gtctattttt
 241 ggaacctgct accaatgctg gtctcacact tgcaattctc agctgagcca agagggtgaga
 301 gaaagggtcat tttccattcc aagatctcac tctcccctgt gacactgagg aaactggcaa
 361 gtgatgtgaa ggctggagag cgtgtcctgt atgctggctc tgtcccctct gectgtgttg
 421 actgacatag ttagttgctg cccttgctgg tctcccctcc tccaaccttg cctctctgag
 481 cacacctgac attcatctca tgacttccct aaaaacattc tttgggaaca agaaactaac
 541 aaatcccaag tgacctatca catatacaaa catacagggc agagtttggg ttcgcggtag
 601 aagaaaggga ggtagacat taagaagaat ggtctggtga tgacagttgt gagataatag
 661 aaacaggaaa aagaaatcta agttttcttt ctttttttaa gaaccaataa taatttctct
 721 cttttgacta gtcagtaggg ctggggtgga ttggagggaag cttacatatt ccatgaacaa
 781 gectcttctt aaggctctgt aagtatcct gccccactga ttagccctta gaagaccctt
 841 caaaggttgg atctccagga gggagtgagg gaggaagacc ctgtaccagg cagcctctgc
 901 tccattgctc tgggggggtg gggaagacaa accctgggca tcccctcagt ctgtagccct
 961 tttgtgtgag tgcctggcaa gggtagcgtg gggctgtttc tgcgggcaca gctgcagcaa
 1021 ttaccggagt ggaggcaggg ccaggcagc actgccctcc aagatcttcc cttgggcttt
 1081 tcagcagtaa ggggacatgc accccaaggg cctccacttg gectgacctt gctgcggggg
 1141 ctctctgtcc ccaggaacag tagagatggc aagcttatcg agaccctctc tgcccagctg
 1201 cctctgtctc tctctctctc tctctctctc ccaagtgtct tccagctatg caggtaagac
 1261 atgttttttt tcttgccttg gggagaccct gaaaacagaa aggctagttt cctgggggtt
 1321 agctccttca aacatctctc agttgggtata ttatctttct aaacataga cctactgaca
 1381 tgccctccctt cctcagaaac ctcccggtgg tggttcttac agccttcaag atggagtcca
 1441 gactcttttt tttttttggg acagagtctc cctctgttgc tcaggctgga gtgcagtggc
 1501 atgatctcgg ctactgcaa cctcagcctc cctgggtcaa gcgattctcc tgacttggcc
 1561 tcccaagtag cggagactac aggcgcctgc caccacaccc agctaaattt gttcttttct
 1621 ttcttttttt ttttttttgg gatttttaga cagacggggg ttcacatgtt ggccaggatg
 1681 gtctcgatct cttgacctgc tgactcggcc gectcagctt cccaaagtac tgggattatg
 1741 ggcgtgagcc actgcactag gctaattttt tttattttta gtagagatgg ggtttcaca
 1801 tgttggccag gctgggtctg aacccctgac ctcaagtggg ctgcccctct cagcctccca
 1861 aagttctgag attacaggca tgagccattg cgtctgaccc agactcctta atgtgactaa
 1921 ctccaggctt tcttggact acttcttact tgtctttcca gctttgtctt ttcacctctc
 1981 caattgagat aaaataataa caacctcttg gagtctctat caggattaca tgaaatgaga
 2041 tatgtaacat gcttagcagt gcctgtccat agtaaatctc aataaatgtt tgtggaatta
 2101 taatatcttg tcatgtttga gactttgtct tgcataatca ggcaccagta ggtttttata
 2161 aaggaaccgg tctgtcacgt gcagaggaga aataaacaga aagtttccca tctcaggga
 2221 gccacctgac tgacagaggc acagtgcac cactctccag gtctagggga gaaagcagcc
 2281 ttattttctta gttagctcaga atctgacttg agaaacacat ccacatagaa aaaaacaagg
 2341 aactttttcg ggtcagggtc cgggacccac agtgagggtg aagatacagg ggaagggaaga
 2401 gggaaaataga gccatcccga ggggtggaaga tctcagaaga gaatttggga aacaaggat
 2461 gaacaaggac tgaatagtga gaagtgtagg agagacagct aaagttagatg gagtgtcaaa
 2521 accaaaacct ctaagggtag aataggcagc aatttggcca agtcctaaca gggaggccca
 2581 taggaggatt caacctcaag atgctgtgcc acattccaag agggaaacct aaggctgggc
 2641 tgaagagtca gagatggcta cagctggcaa aaagatgggc agatgctgag aggagatgat
 2701 tgctaaaatg ttctgtccag gacattcaca gtatctctat aaccagagtc tttttgtctg
 2761 ttgttgttct caagaaggaa acttgaggcc ggggtgtgtg gtttatgccc ataattccag
 2821 cgctttgggg ccaaggcagg cggatcacct gaggtcagga gttcgagacc agcctggcca
 2881 acagtgtgaa acctcatctt tactaaaaat acaaaaatta gctggatgcg gcggtagggtg
 2941 cctgtaatgc cagctactcg ggaggctgag gcaggagaat cacttgaacc tgggaggcgg
 3001 aggttgcagg gaggcggagg ttgcagttag ccaagattgc accactgcac tccagcctgg

FIG. 18

3061 gcgacagaga gtaagactgt ctcaaaaaat aaatgaataa ataaaaagga agaagaagaa
3121 gaagaacaat tgcaatcctc cctggctcta gaatgtcatt taaaagtcga gtgtcttctt
3181 ccttccctgt tttgaagcag cccttctcat gacaggcttg cttgccaagg ttccctctga
3241 ccttaaatct cttccttttg gtgtcttgga cagggcagtt cagagtata ggaccaagac
3301 accctatccg ggctctgggc ggggatgaag tgggaattgcc atgtcgcata tctcctggga
3361 agaacgctac aggcattggag gtgggggtgt accgcccccc cttctctagg gtgggtctac
3421 tctacagaaa tggcaaggac caagatggag accaggcacc tgaatatcgg ggccggacag
3481 agctgctgaa agatgctatt ggtgagggaa aggtgactct caggatccgg aatgtaaggt
3541 tctcagatga aggagggttc acctgcttct tccgagatca ttcttaccac gaggaggcag
3601 caatggaatt gaaagtagaa ggtgagtagt gccatataat attaggtatt aactgttggg
3661 tggccaagaa caattattct ctcaactgag atgagatccc tcaacccaaa catctcagtc
3721 ctgggaatga tttccataaa aatgtacaca tcaataaaca gaaactcatg cttagggatg
3781 tctgttgcat cattattcag agtagcaagg aaattgggat caaaatcaat gcctttgagt
3841 aggtaatgta cagaatgaac aatggtagcc atactgtgaa tattatgcag ggattaaaaa
3901 gattatttta gcactaggcc agatgggttg gggggctcct ctaagggtatt attgagtgat
3961 aagagcaagc tgctgtagga tacaataaaca aaaacaaaac cctaggggcat ggtgggttgc
4021 ctgcgagcta ctcaggaggc tgagacggga ggctggcttg agcccagggg tttgcagtta
4081 cagtgcagta tgattgcacc actgcactcc aacccgggtg acagagcaaa gaccttcacc
4141 cccactccct acccgctctc aaaaaaaaca aaaacaaaaa caaaaaaacc cttggggcca
4201 ggcgcgtggc tcacgcctgt aatcccagca ctgtgggagg ccgagggtggg cagatcacaa
4261 ggtcaggaga tcgagaccat cctggctaaa acggtgaaac cccgtctcta ctaaaaatac
4321 aaaaaaaaaa aaaaaattta ggcagcatg gtagcaggcg cctgtagtcc cagctactcg
4381 ggaggctgag gcaggagaat ggcgtgaacc cggaagcgga ggttgtagtg agccaaaatc
4441 ctccaactgc actccagcat gggggacaca gcgagactcc gtctcaaaaa aaaaaaaata
4501 accctgtatt tgtgagcgca cacacacaca cacacacaca cacacctgtg cttggtccta
4561 gtgaataagc aagtaaatca aatgtctaaa tataattata gaaaggagat gtcacctttt
4621 ggctgtacct ccactatttc attctgcaga attgcagaat ttcttttttt ttctcttctt
4681 ttcttttctt tttttttttg acacagagtc tcgctctgta acccaggctg gagtgcagt
4741 ttgcgcctcg cctcctgggt tcaagtatt ctctgcctc agcctcccgga gtagctggga
4801 ttacagggtgc ccaccaccac acccagctaa tttttgtatt tttagtagag acagggttct
4861 accagggtgt caagggttgt ctcaaactcc tgacctcagg tgatccactc gctcagaaat
4921 cccaaagtgc tgggattaca ggcattgagcc atggtgcccg gctcagaaat ttcttttca
4981 acatgttttg catgatgggt gattttggag aatatttttt gctctatcgc aggatgatta
5041 agatgtggac aaggtgaagc cgatggaggg ggagctttga aagttacttg ctatttaatt
5101 gaggaactaa actgctttga gagcctgggg gtcagatcct ctgccttttc ctcctcccca
5161 cctgcagtgcc aaacatcaga caattgatca ctattgtatc ttggagggtg gagtgcacct
5221 tgcagtgctg ggaccagaag atggcattgt atgtggaaca acaaagcact atttctagag
5281 actgcctgca gggatatgga aatagcttta tgtgtctcag aatgttcttc atacagctgt
5341 ttttattggg gaaattctac ttgcccgaata gtttgatagt gagacctctc ccagtttgca
5401 gatttttctc cttcctgctc aacaacttcc tagctcagta actgcctctc ccaacaaact
5461 cctcagttt caccacacca aaaaagggaag acaagccggt tgcgggtggc cacacctata
5521 atcccaaaac tttgggaggc cgaggcgggt ggatccacct gaggtcggga gttcgagact
5581 agcctgacca acatggagaa accctgtctc tactaaaaac acaaaattag cctggcgtg
5641 tggcgcatte ctgtaatccc agctgggagg ctgaggcagg agaatcgctt gaaccccgga
5701 ggcggagggt gcagtgaacc aagatcgctc cattacactc cagtctgggc aagaaaagt
5761 gaactccatc tccaaaaaaa aaaaaaaaaa aacaagggaag acaaaaagaa aagcagctaa
5821 agactttgcc tcaggggaga aagttctctt ttgggttgct atccacattc caacctcctg
5881 tttccacctc ttctgtctga tgcttaagaa actgttttac aagtaataaa gggacgcttt
5941 gtctaggctt tggagccagg aagttgagac aatatttaga atgagatgaa gtaatgggt
6001 tattgcaagt ctcagggtga actacctctg ctctttctct gaagagtttc taatttctct
6061 tgtttactta ttttttctt gtcatttttt ggattttatt actagttgtc tctaatoctt

FIG. 18 (cont.)

6121 tcttttaaatt cttcattatg aaacataaaa acaaattgcc ggcgcggcag ctcacgcctg
6181 taatcccagc actttgggag gccgaagcgg gcagatcacc cgggtcagga gttcgagacc
6241 agcctgatca acatggagaa accccgtctc tactaaaaaa tacaaaatta gctaggcgtg
6301 gtggcacatg ccagtaatcc cagctacttg agagactgag gcaggagaat cgcttgaacc
6361 gggaggcaga ggttgcggtg agccaagatc gcgccattgc actccagcct gggcaacaag
6421 agcaaaaactc tgtctcaaaa aaaaaaaacc acatacaaac cagagataat attataatga
6481 gcctccaagt gcctaccacc ttgctgcagc acttgatcaat ccagggaaca cccacctcac
6541 cggctcccca ctcattacca cctccccccta ctcaattact gaggtaaatc ctaggcagca
6601 tgatcatttc ttttttttct ttttatttat tttgagacag gatctgtctc tgtcaccag
6661 gctggagtggt agtggcatat ctctgctcac tgcagcctct gcctcccggg cagaagccat
6721 cctcccacct cagcctacat agtagctggg accacaggca cacaccacca cacactgcta
6781 atgttttgta ttttttgtag agactgggtt ttaccatgtt gatcaggctg gtctcaaact
6841 cctaggctca agcaatcctc ccacctcggc ctcccaaagt gctagaatta caggcgcgag
6901 ccaactgcacc cagcgaagaa cactttttta aaaataaata ggcggggcgc ggtggctcac
6961 acctgtaatc ccagtaactt gggagcccaa ggaggcgaa tcatgaggtc aagagattga
7021 gaccatccta agtaacatgg tgaaacccca tttctactac aaatacaaaa acaaaattag
7081 cctggcgtgg tggcaggcgc ctgtagtccc agctacttgg gagctgaggc aggagaatgg
7141 agtgaacccg ggaggcggag cttgcagtga gctgagatca tgccactgca ctccccctg
7201 gggcaacaga gtgagactcc caaaaaaa aaaaaaagcc cccctcccc acacacaata
7261 atataaataa ataaataacc acaatactat tatcacatct taaaaactca acaaaattt
7321 cttaatatca tcaaatcccc agtttgtgtt caaattttcc tgattgtttc ataaatatac
7381 tcttacagtt ggtttctttt agcgagattc aaatgagacc cactgttgta cctttgcctt
7441 tagggtttcc caggggtctga atttgttga cgacattccc atgttgctat gtaatacggg
7501 cctccatgcc ctgtgttttt ctgtaaactg atagatgtgg aggtgcaatg acatttgtgt
7561 ttgatttact ttggcaataa tagttcatca gtgatactct atacttcttg ttgctttaca
7621 tccggaggct gataatgtct gcttttctct cttttctaata tttttgtgaa aggaaaaatg
7681 tgggggggtg ggagaaaaaa acccttaagt acatactcgc taaatcacat tgctacaggt
7741 aacttccatt aagaacttga aagtaaaagt agctgcattt tcccctaggg aacacaatga
7801 tagacaggag ccttagtcta cagcttgaag gattgtaatt atacctaacg aaccctcctg
7861 gaccagttaa atgttattag ctgtgatgta tccctacctt tgatgtcatt atccttactt
7921 agctccctta aagcagagat caagatgaaa agggcttcag ctgcagcatg gcacatggag
7981 attagagtgg ggcttttgga tgctgaggag cagacctaga atgggaaata gatgggagcc
8041 acagaagtga aggtccccct cctcattgct tcaacctact ccacatctcc aggtctgcac
8101 atctgttcag ttactgaatc ctgtgtaagc taacctcttt ttctttttt ttttatttat
8161 ttatttattt tttttttgag atggagtttt gctcttgtaa cccagggtca agtgcaatgg
8221 tgcaatctcg gctcactgca cctccaact cccagggtca tgcaattctc ctccctcagc
8281 cttccaagta gctgggatta caggctgcac caccatgtct ggctaatttt tgaaaaatca
8341 gtagagagag ggtttcacca tgttggccaa gccggtctcg aactcctgac ctcaagtgat
8401 ccaccacact tggcctccca aaatgctggg attacagggt tgagccacca tgcccgctgt
8461 aaactacctt cttaaaagct ctagaagagg gcttttaacc ttttgtgtg tgtcatgcac
8521 cttccgcaag ctgatgaagt tgatagaccc atctcagaat ttttttttt tttttgagac
8581 agtgtctcac tctgtcacc aggattggtt gcagtggcac gatcatgggt cattgcagcc
8641 tccacctccc aggtcgaagt gatcctcctg actcagcctc ttgaatagct gagaccacag
8701 gcttgtgtca ccatgcccag gtaattttta atttttttt gtagaggcag ggtctcacat
8761 tatgttgccc agtctggcct cgagaactcc tgggctcaag caatcttcc gcttgggct
8821 cccaaagtgg tgggattaca ggggagagcc accacacctg gccaggagga tgttttaaat
8881 acaccaaata aacattttat acccaaatat agttatccaa atatttaatt aacaagagtt
8941 agggtgacct tatataattag tgtaatttcc aaatagtaat gaacataagt gatagtttga
9001 gatttctgtg acttttctaa tgtgacgtga aaatatttgi gatttttct tttcttttt
9061 ttttttgaga tggagtttct ctcttgttgc ccaggctgga gtgcaatggc aagatctcgg
9121 ctcacctcaa cctccgctc ctgggttcaa gcgattctcc tgccctcagcc tcttgagtag

FIG. 18 (cont.)

9181 ctgggattac aggactgtgc caccacgtcc agctaatttt gtatttttag tagaaacagg
 9241 gtttctccat gttggtcagg ctggtcttga actcccaacc tcaggcgatc cgcccgccctc
 9301 ggcctcccaa agtgctggga ttacaggtgt gagccaccgc acctggccaa tatttgtgat
 9361 ttttattgac gacaaagtca aaggttctct tcatattatt gtggtgtatc gcctacaagc
 9421 ataattaaaa taaacactaa atttcagttt aaagtttact gaaaataaat atgtattttt
 9481 tattccctat ttaagctttg aatcccctga cttectatac cattaccact gtcctagttc
 9541 aggttcatgt tgttttttac ttttaattgtt atcacagtct cttaacattt ctccctatgt
 9601 tctccagtcc tgtaggtgct aaatctgacg tggtcacttc tcagcttgga atccttcagt
 9661 gcaccaccac agccttgaac tacatatttg aaatacatat ttattttcag taaactttaa
 9721 actgaaattt agtgtttatt ttaattatgc ttgtaggcga tacaccacaa taatatgaag
 9781 agaacctttg actttgtcgt caataaaaag tcccttgagg ggacttcaga tgaagtccc
 9841 ttagtgtctc gttaaaactc cccaggtcgt acccaatata caatcttgac tttaaaccac
 9901 ttgtcattct aaatcactag catttccctg aaaaaaaagc catttttctt tcagggtcaa
 9961 gctcagggac caattctgtg tcaccttctt tgaatcctga tgatattcac ttctttattt
 10021 gacctgattt attgggcccc agacaccatg ctgagtgttg gggattcagc tctggacaat
 10081 gtcaaagtgc agtccctgct ttccagatcct ttctactggg tgagccctgg agtgctgggt
 10141 ctccctcgcg tgctgcctgt gctcctcctg cagatcactc ttggcctcgt ctccctctgc
 10201 ctgcagtaca gactgagagg tacagggcag aggggtgggtg gatcaggatc cttcttttaa
 10261 atgagctggc ttcttgagc tacaccaact aacatgtatt tgtgagtac ttctgggttc
 10321 agaagttctt ctcactattg agtgataaag aaaaaaata actccatgat gaaagagttt
 10381 tacatcttac ggaatgcttt catatgaata atcggacctc gcatttccct atgagctaac
 10441 tatgccatat agtaacccca ttttacagag gatacaactg aggccaggag tagttcagt
 10501 acttactcaa accgatataa cttataagtg gttagagctga ggcctctgta tcatacctag
 10561 cagctccatg caecttgga gagtgtgagc ttccaagtca gacaggtcta ggcctattag
 10621 agttttgaat aaagatactg aagtgaagt ctctaccaca cagtaggcgt tcgaaaattg
 10681 tttcctcttt ctccattcaa cactgaggac tcagggttcag ctgctgatga agctcctctt
 10741 ttttgccctag agctttcatt ctgagccttc tctcctacc aagtgtctcc ccaatgccag
 10801 agcaggaaga gtcttcact ctcaccaatgc cccacctccc atttgttact aagaggagag
 10861 gagaaagttag caaggagggt atggggaatg ttctggggga atgggtgttg gtgcgatcaa
 10921 caacaaagtc ctttctctca ccttgaattc atcccagatg cctgcttgtt tacttcttc
 10981 acacaaaaaa aggccttcag cccctcatggc tgagcagaaa gaatctgaat gttagagtca
 11041 ggcagcctgg gtttgaattc catctcaggt actgaactct atagcaaat tcttagattc
 11101 tccaagcttc agttgccttg tctgtcaaat agagaaaaca tccctcgtcc taaattgtag
 11161 ggaggattaa agtcatgcaa agtgcctact acaaatccag tcacaaagta gctagctact
 11221 cactaaatgt tcagctctc cctcctcatt cagatgggaa gtggctttag ataaacaaag
 11281 tggcaacgca gtgggctgga gcagctctgt gaactgagaa tccaagaaaa ggggcgaaga
 11341 gcagctggga tgtattgat gcttgtgctg gcttggagca ttgctcacat tctttattcg
 11401 ctattgtatc tagactatag cttagagaaag agccgcaacc attggcttta aatccagtgc
 11461 tcttctact ctctgaggt tgtttccagg ctgcagagaa atagcctgca caaggggccc
 11521 aggcgctggg tgtgggaggg tccccaccga gagccagaac atgcaggaac taaaatgttg
 11581 cctttttcta ttttaggaaa acttcagaca gagataggtg agttccagtc atcgtttctc
 11641 ccaattcttg ccttttggtt ttttggcata acggaaaatg tccattctt ggaccgtctc
 11701 tccctctcaa taccctgttt tcccctcagt ttcccttct ctacagtggg tgtgtcgtgc
 11761 ctagaacaag ttttaagtaa ttaaataaca aagactcagg ataaaaggat cctttttgga
 11821 gtgccctact aaatccattt ccatttgttt ctctttcaga gaatctccac cggacttttg
 11881 gtaagttccg gcatgtctag gccctcccag gtcaacttgg tatttcactc tagttccagt
 11941 caectggggg aacaaggacc cctggctcct ggttgagtcc cttcctctct tctctttct
 12001 ttcttttaaat aagaagtcatt ttgcatttag gattggtaaa atcataataa aaatactcat
 12061 gtactgtttt tatgtgccag gcactattct aactacttta caaaaacgtt atcttattct
 12121 gtttaactcc ttatgcacat gatctctctt ttcagggaatg ccaaacagaa ggtaaataga
 12181 tegttttacac gtaaacctga tgtctggttg gggaggtgaa acaaacagaa acaagacaca

FIG. 12 (cont.)

12241 actgtatcac ctgtacttat atttctgctt taaaaactca ggatgtttcc atgagtacag
12301 aacatgacta atcagagaag acctcataga ggaatagaaa agccaccaag cccactagg
12361 aattgacccc tcaaggacat ggtttctagc ctttttggtc actgcagatt gcccaatgcc
12421 taaagataat ggcaacagaa gagcacccaa atatttggtt gataaatgtt gcagacacta
12481 gaaggtgtca ttagggcaca gatggtacct tctctgagca aacttccttc acagctcctc
12541 ctcccagggc ttaggtgac tctactcttg tcacctggca cacagagttc tatcgtacga
12601 tttaggaaat tagaccagt tgtggaccac acacacacac atctttacac acccaaagag
12661 gaggaatagt atctttgttt tggaggactt gactatgaaa ggtcttaact cttttttgta
12721 ccatgaatct ctctggcact ccagtgaagt ctaaaggacc cttttgcaga atgtttttta
12781 atatacacat aaaatagaac acataggatt gcaaaaaaaa tcattgtact aaaatacagt
12841 tatcaaccga taatcacatt tgtgatatag taacataaat gtttcttttt ttttttttg
12901 gaggcagagt ttggctcttg tcacccaggc tggagtggaa tggcgcgac taggctcact
12961 gaaacctctg cctcccgggt tcaagcagt ctcagcctcc tgagttagct ggattacagg
13021 tgcccgcac cacaccagc taatttttgt attttttagta gagactaggt ttcaccagg
13081 tggccaggct ggccctgaac tcctgacctc aggtgatcca cctgccttgg cctcccaaag
13141 tgctgggatt acgggcatga gccaccgtgc ccggccataa atatttcttt agccaaagta
13201 atacattaag taatgtagca gcaagtctaa taacctgtaa tttctttctt ttttctttc
13261 tttctttttt tttgagatga agtttttttg agatggagt caatggcaca atctcggtc
13321 actgcaacct ccacctctg ggttcaagcg atttctctgc ctcagcctcc caagtgtctg
13381 gaactacagg cgcattgccac catgcccagc taatttttgt attttttagta gagacggggt
13441 ttcaccatgt tggccaggct ggtcttgaac ccctgacctc aggtgatctg cctgccttgg
13501 ccttccaaag tgctgggatt acaggcatga gccaccaggc ccagcccaat aacctttaat
13561 ttcaacatac taataaacat aaacagtatt tcaagatttc tgcaataact ctaatgggaa
13621 tgaaaacatc tgtggcttcc atttgtaatt aagtcacagg tactgctcat attgtggtta
13681 gttgtaaaaa gtttttggtt gttttgtttt ttccaagact tgggggaatg ggtgttggtg
13741 ggatcaacaa gagtcttgct ctgtggccca ggctggagt caggggcagg atcttggtc
13801 actgcaacct ccgctccca ggttcaagcg atttctctgc ctcagcctcc tgagttagctg
13861 gcattacagg catgtgccac cacgcccagc taattttttac attttttagta gagatggggt
13921 ttcaccatgt tggcctggct ggtcttgaac tcttggcctc atgatccacc cgtctcggac
13981 tcccagagt tgggattac aggcattgac caccacacct ggcagttgtt acatttttaa
14041 tgaaagaaaa tgttaaattc agttattgaa aataaggagg cagtactttt ctcattccaa
14101 ttcattgact tctgaattt tgtcccca gtcctttggt gttctaggac cccaggttaa
14161 ggaacccaaa aagacagggt ggtggggcat gagggggaac acatgttaat cctgtttgt
14221 tctggtgaac aattcagatc cccactttct gagggtgccc tgctggaaga taacctgtt
14281 tgtaattgtg ccggttcttg gacccttggg tgccttgatc atctgctaca actggctaca
14341 tcgaagacta gcagggtcag tggctgggca gcaggcaaga ccaccaaata gtgggggacc
14401 aagtcagctc tgaatgggaa gccaaaagag aatagaacca ggactcaaga ttaggggagc
14461 tgggatttcc ttattctctt gtcccatg ccaacccag gctcttctga gaaactgtga
14521 agagaaccac ttactggatc tgtgggatcc cccagtggaa agggcagtg gggcactcc
14581 aaatgtccat agggaggatg tgggggaagg gctattcatc ttccactaat cacatatttg
14641 tttctttttg ttttcagggc aattccttga agagctacgt aagttctctt ctctctgtta
14701 taagcagaga ataaaaagcc aggaaaaggga gacagaagca acaagaggaa gaggcgggct
14761 attgagggat cacattccca gaggaaggga ggagctggag agcctgggtg gagggaagac
14821 tctcctggg aggtagagg caaagaagcc agctgttaga gacacattta cagggtggcag
14881 agaagctgga ggcactccta tctgccacct gatccattcc tcttctactg ccctaagca
14941 ggaatccaac cctagctggt ctcatgccc attccaagc aactgcccag tgcctcacct
15001 ctcatgcaa ccatgaggc aggaatggag acaatgatgac cccaagggtt tttcttctc
15061 ctagtccaat ggttttatga tacaactac tgcatacgt ttttcaagt attttctct
15121 tcttctagga aatcccttct gagtgtgtc acatcttggc aggggtggag gagagcctg
15181 ttgcccagg atttgtcctt ggggacatct catccatcaa gttgcacact cactggcatc
15241 tttgctatgg ggacattcca atttgcactt tcaggaacac tctgaattcc aagtagaatt

FIG. 18 (cont.)

15301 gatttccctt cttctgtcat ctaccttttc tcttcatttt cccattttta ttacctttct
 15361 ttccattttct ctctccagtc ttccacctgg aagccctctc tggctaagga caggcagggtg
 15421 cccctctctc catcagagga cacctgtact ggagagcaac acaggatggt ctctgccatg
 15481 aactggaggc caggaatctc ctactgaaa attacagtat ggtaactttg caaatgggtg
 15541 ttgtttcttc caagactcca gccctgattg cgcaaaactg aaaggcatgt gaagggaagg
 15601 aagaggaaga gtgcaaaaca ttgaagagag agctgagtga gctgaagagt gaggatatga
 15661 gtagccccc aaacaaactg gagatgggga gaaacctaca gaatactagc cagagctcct
 15721 ccttgcttg gcagcctact agggacctgg ggaagcaaaa acgaaagctg ggcaacatgc
 15781 ctgcttttaga atgttttctt tctacttaca catcttccac aggtctcaga atctttcctt
 15841 cctctcatcc ttttctccta tctacatata tatcagagta tccactgttt attcaacaac
 15901 tactacttga tggtcagaca caaacaataa agctaggtgc taattaataa agatacaggt
 15961 tttggccggg tgcggtggct cagcctgta atcccagcac tttgggaggc cgaggcgggc
 16021 gaatcacgag gtcaggagtt caagaccagc ctggccaaca tgggtgaaacc ccatctctac
 16081 taaaaataca aacaattaac tgagcatagt ggtgggcacc tataatacca gctactccgg
 16141 aggctgaggc aggagaatcg cttgaaccca ggaggcagag gttgcagtga gctgagatcg
 16201 cgccactgca ctctagccgg agtgacagag taagactctg tctcaaaaaa aaataaataa
 16261 ataaataaat aaataaatpa ataaataaaa aataataata caagttttca taagcacact
 16321 tctaaccctt tgtcttttat gtatttctt ccttatccac gcacctgtct cctctactc
 16381 cagcctcatt accccagagg tcaagtcctca ggaaaactaa acacaaagaa agagctcagt
 16441 cagaaaggcc atttatttat gtttcaagat gctcactgcc tcctttgttt tgtctccttt
 16501 gcaggccttc tctcttaggc ctcttctcct gggggtatgg atcctggggg gagattgatc
 16561 acctccatgc ttccattcct ccccagccat agtggggaca tcatgagaga agccaagcca
 16621 ctggcccgag atcaccgggc atttatgggt gctgctctgg cacaggtcct tgcctttata
 16681 gcccctccag tgatccataa ggccctcttt ctccccaaag gagaggtcac agatagggca
 16741 aaggtagctc ttctgcttcc agtggtctg ctggtgtctg accagcctgg aaaatgagct
 16801 gaaagacttg ctgcaatgga agcagtagtt gggcggtct gtgaggtggc ccttctggtg
 16861 tctggagaga taggatttct tgctaaaagt caaagaacaa tgggggcaac agaagacatt
 16921 gagtcttgag ggcttcaact gatgagagtt ggatctggca tctgacaga gggttccagt
 16981 gatgggtgcc tgggtcctgg tcacaggtgc ttggttctta agtacagatg cctggttctg
 17041 ggccatagga cctcagttc taaatatggg ttcttgggac ctggccactg gtgcatggtt
 17101 cacatccaaa agccctgga tggacctctg gcttctggcg atgggtgtct ggaattcagc
 17161 ctgggtgcct ggaatectca aagtaactc ctggtttcca tccactggct cctggtttt
 17221 gtgtatcttc tgggtggcgtt tgagctcaga ctggtcccg aagctcttcc cacacacaga
 17281 gcatgaatgg ggccggtaac ccagatggac gggcggtga cgacttagtc cagaagcatc
 17341 acagtaggtc ttgtcacaga gcgtgcaaca gaagggcctc tccccaaagt gcatgcgtct
 17401 gtgatagctg agggacttgg ggctccgaaa caacttccca cactgactgc agctgttagt
 17461 cagcttggga ttgtgaacaa actggtggct atagaggtag gagcgctgc tgaacattt
 17521 ggcacagggt tagcaaaa

FIG. 18 (cont.)

1 tttgtatgtc attgcaggat tcatgctttc cagtgtgtca tctatggaac tgcctctttc
61 ttcttccttt atggggccct cctgctggct gagggcttct acaccaccgg cgctgtcagg
121 cagatctttg gcgactacaa gaccaccatc tgcggcaagg gcctgagcgc aacggtaaca
181 gggggccaga aggggagggg ttacagaggc caacatcaag ctcattcttt ggagcgggtg
241 tgtcattgtt tgggaaaatg gctaggacat cccgacaagg tgatcatcct caggattttg
301 tggcaataac aaggggtggg gggacaa

FIG. 14

1 ctgtatcagt gctcctcgtc gcctcactgt acttcacgga agagacttgg ttgactggcc
 61 acttgaggcg gaatcaggag acattcccaa ctcagagaga ctgagcccta gctcgccac
 121 ttgctggaca agatgatatt ccttaccacc ctgcctctgt tttggataat gatttcagct
 181 tctcgagggg ggcactgggg tgccctggatg ccctcgcca tctcagcctt cgagggcacg
 241 tgtgtctcca tcccctgccg tttcgacttc ccgatgagc tcagaccggc tgtggtacat
 301 ggcgtctggt atttcaacag tccctacccc aagaactacc cgccagtggg cttcaagtcc
 361 cgcacacaag tgggccacga gagcttccag ggccgtagcc gcctgttggg agacctgggc
 421 ctacgaaact gcacctgct tctcagcacg ctgagccctg agctgggagg gaaatactat
 481 ttccgaggtg acctggggcg ctacaaccag tacaccttct cggagcacag cgtcctggac
 541 atcatcaaca cccccaacat cgtggtgccc ccagaagtgg tggcaggaaac ggaagtagag
 601 gtcagctgca tggtgccgga caactgccc gagctgcgcc ctgagctgag ctggctgggc
 661 cagcaggggc taggggagcc cactgttctg ggtcggctgc gggaggatga aggcacctgg
 721 gtgcaggtgt cactgctaca ctctcgtcct actagagagg ccaacggcca ccgtctgggc
 781 tgtcaggtgt ccttcccaa caccaccttg cagttcgagg gttacgccag tctggacgtc
 841 aagtaccccc cggtgattgt ggagatgaat tctctgtgg aggccattga gggctccac
 901 gtcagcctgc tctgtggggc tgacagcaac ccgccaccgc tgcctgactt gatgcgggat
 961 gggatggtgt tgagggaggc agttgctgag agcctgtacc tggatctgga ggaggtgacc
 1021 ccagcagagg acggcatcta tgcttgccct gcagagaatg cctatggcca ggacaaccgc
 1081 acggtggagc tgagcgtcat gtatgcacct tgggaagcca cagtgaatgg gacggtggtg
 1141 gcggtagagg gggagacagt ctccatcctg tgttccacac agagcaaccc ggacctatt
 1201 ctcaccatct tcaaggagaa gcagatcctg gccacggtca tctatgagag tcagctgcag
 1261 ctggaaactc ctgcagtga ccccgaggac gatggggagt actggtgtgt agctgagaac
 1321 cagtatggcc agagagccac cgccttcaac ctgtctgtgg agtttgctcc cataatcctt
 1381 ctggaatcgc actgtgcagc ggccagagac accgtgcagt gcctgtgtgt ggtaaaatcc
 1441 aaccgggaac cctccgtggc ctttgagctg ccttcccgca acgtgactgt gaacgagaca
 1501 gagagggagt ttgtgtactc agagcgcagc ggccctcctg tcaccagcat cctcacgctc
 1561 cgggggtcagg cccaagccc accccgcgtc atttgtacct ccaggaacct ctacggcacc
 1621 cagagcctcg agctgcctt ccagggagca caccgactga tgtgggccaa aatcggccct
 1681 gtgggtgctg tggtcgcctt tgccatcctg attgccattg tctgctacat caccagaca
 1741 agaagaaaaa agaacgtcac agagagcccc agcttctcag cgggagacaa cctcatgtc
 1801 ctgtacagcc ccgaattccg aatctctgga gcacctgata agtatgagag tgagaagcgc
 1861 ctgggggtccg agaggaggct gctgggcctt aggggggaac cccagaact ggacctcagt
 1921 tattccact cagacctggg gaaacgacc accaaggaca gctacacctt gacagaggag
 1981 ctggctgagt acgcagaaat ccgagtcaag tga

FIG. 20

1 masqkrpsqr hgskylatas tmdharhgfl prhrdtgild sigrffggdr gapkrgsgkd
61 shhpartahy gslpqkshgr tqdenpvvhf fknivtprtp ppsqgkgrgl slsrfswgae
121 gqrpqfgygg rasdyksahk gfkqvdaqgt lskifklggr dsrsgspmar r

FIG. 24

123456789101112131415161718192021222324252627282930313233343536373839404142434445464748495051525354555657585960616263646566676869707172737475767778798081828384858687888990919293949596979899100

1 maslsrpslp sclcsfllll llqvsssyag qfrvigprhp iralvgdeve lpcrispgkn
61 atgmevgwyr ppfsrvvhly rngkdqgdgq apeyrgrtel lkdaigegkv tlrirnvrf
121 deggftcfr dhsyqeeaa elkvedpfyw vspgvlvlla vlpvillqit lglvflclqy
181 rlrqklraei enlhrtfdph flrvpcwkit lfviwpvlgp lvaliicynw lhrilagqfl
241 eelrnpf

FIG. 23